

REMARKS/ARGUMENTS

Claims 1-5, 7-14 and 16-41 are pending.

Claims 1-5, 7-14 and 16-41 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,090,167.

As amended, all the pending claims of the subject application comply with all requirements of 35 U.S.C. Accordingly, Applicant requests examination and allowance of all pending claims.

Finality of Current Rejection is Not Proper

As an initial matter, Applicants respectfully assert that the finality of the current Office Action is improper. The double patenting rejection discussed below is a new grounds for rejection that was not presented in any previous office action. Furthermore, claim 1 and all other independent claims have remained essentially the same throughout prosecution of the present case with one exception being claim 1 was amended to include the subject matter of originally filed claim 6 and claim 10 was amended to include the subject matter of originally filed claim 15. Thus, claims 1 and 10 are substantially the same to originally filed claims 6 and 15.

Patent Office rules are clear that when a new ground of rejection is presented that is not necessitated by Applicant's amendment of the claims, a final rejection of claims is improper. See MPEP, 706.07(a). The current double patenting rejection was not necessitated by Applicants amendment. Thus, in the absence of an upcoming Notice of Allowance, Applicants respectfully request withdrawal of the finality of the Office Action and the issuance of a new, non-final Office Action.

Double Patenting Rejection

Claims 1-5, 7-14 and 16-41 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,090,167 (Bhan et al.). This rejection is traversed for at least the following two separate and distinct reasons.

As an initial matter, Applicants would like to remind the Examiner that the '167 patent was the sole reference used in the previous Office Action to reject many of pending claims for being obvious under Section 103 of the Patent Laws. Each of these Section 103 rejections was successfully rebutted by Applicants response filed March 18, 2003.

As set forth in Applicants previous response, the '167 patent is one of many known patents related to improving the stability of fluorine-doped silica glass (FSG) films. As explained in the '167 patent, the inclusion of fluorine into a silicon oxide film (an FSG film) has an important benefit of lowering the dielectric constant of the film. Col. 1, line 66 to col. 2, line 23. A person of skill in the art would readily appreciate that the dielectric constant of an FSG layer is proportional to the amount of fluorine included in the film. The skilled artisan would also realize, however, that when too much fluorine is incorporated into an FSG layer, film stability becomes a problem. Thus, the disclosure of the '167 patent is specifically directed towards a technique that allows the formation of stable FSG layers having increasingly high levels of fluorine (and thus increasingly low dielectric constants). See e.g., col. 2, lines 35-67 and col. 5, lines 1-9. Thus, as the Examiner has realized, the '167 patent does not teach, suggest or claim the formation of a silicon oxide layer having less than 1.0 atomic percent fluorine as recited in presently pending claim 1. Instead, the '167 patent teaches away from the formation of such a layer.

The Rejection tries to overcome this deficiency in the '167 patent by now relying on a double patenting rejection instead of a conventional Section 103 obviousness rejection. In essence, the Examiner seems to be arguing that despite that fact that the disclosure of the '167 patent does not support an obviousness rejection of the present claims, the breadth of the claims in the '167 patent does. Case law is clear, however, that portions of the specification which provide support for a patent's claims should be examined and considered when addressing the issue of whether a claim in the application defines an obvious variation of an invention claimed in the patent. Also, the MPEP states " that it is most difficult, if not meaningless to try to say what is or is not an obvious variation of a claim, but that one can judge whether or not the invention claimed in an

application is an obvious variation of an embodiment disclosed in the patent which provides support for the patent claim ... [and] one must first determine how much of the patent disclosure pertains to the invention claimed in the patent because only this portion of the specification supports the patent claims and may be considered." See MPEP, Section 804(II)(B)(1), pages 800-22 to 800-23 in version Feb. 2003.

Thus, according to the MPEP, the portions of the specification supporting claims 1-3 of the '167 patent should be examined as part of the determination in whether or not the present claims are an obvious variation of claims 1-3 of the '167 patent. Because the portions of the specification that support claims 1-3 teach incorporating as much fluorine in a layer as possible and teach away from all claims pending in the present application which explicitly recite the formation of a silicon oxide layer having less than 1.0 atomic percent fluorine, Applicants respectfully assert that double patenting rejection of claims 1-5, 7-14 and 16-41 is improper. Accordingly, Applicants respectfully request that the double patenting rejection of these claims be withdrawn.

Second, Applicants note that each of pending claims 1-5, 7-14 and 16-41 are method claims while claims 1-3 of the '167 patent are apparatus claims. During prosecution of the parent application for the '167 patent, U.S. Appl. No. 08/616,707 (now US Patent 6,001,728), the USPTO issued a Restriction Requirement that stated the method claims submitted therein were patentably distinct from the apparatus claims (some of which ultimately issued as claims 1-3 of the '167 patent) because the claimed apparatus may be used to practice another and materially different process [method]. This form of a method/apparatus Restriction Requirement is commonplace in Group 2800, and the same logic is applicable to (and should be applied to) the present situation. That is, the currently pending method claims (claims 1-5, 7-14 and 16-41) are patentably distinct from apparatus claims 1-3 of the '167 patent because the apparatus set forth in claims 1-3 of the '167 patent can be used to practice other materially different processes. For example, the apparatus set forth in claims 1-3 can be used to form fluorine-doped silica glass layers having a fluorine content much greater than 1.0 atomic percent.

Accordingly, for at least this additional reason, Applicants respectfully assert that the double patenting rejection of claims 1-5, 7-14 and 16-41 in view of

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apparatus claims 1-3 of the '167 patent is improper. For the Examiner's convenience, a copy of the '728 patent, which has the same disclosure as the '167 patent, and a copy of the Restriction Requirement mentioned above have been attached to this Response.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is urged.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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Enclosures: Copy of the Office Action for 08/616,707 (USP 6,001,728) dated 5/11/98.
U.S. Patent No. 6,001,728

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